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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/700,908	11/21/2000	Mitsuo Watanabe	001539	3329

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EXAMINER	
AUGHENBAUGH, WALTER	

ART UNIT	PAPER NUMBER
1772	

DATE MAILED: 09/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/700,908	WATANABE ET AL.
	Examiner	Art Unit
	Walter B Aughenbaugh	1772

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 June 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12 and 14-25* is/are pending in the application.

4a) Of the above claim(s) *1-10 and 18-24* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *11,12,14-17 and 25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 29, 2004 has been entered.

Acknowledgement of Applicant's Amendments

2. The amendments made in claims 25, 14 and 16 in the Amendment filed June 29, 2004 (Amdt. E) have been received and considered by Examiner.

WITHDRAWN REJECTIONS

3. The 35 U.S.C. 112 rejection of claims 25 and 16 made of record in paragraph 8 of the Final Rejecton mailed March 30, 2004 has been withdrawn due to Applicant's amendments in claims 25 and 16 in Amdt. E.

4. The 35 U.S.C. 102 rejection of claims 25, 11, 12 and 16 made of record in paragraph 9 of the Final Rejecton mailed March 30, 2004 has been withdrawn due to Applicant's amendments in claim 25 in Amdt. E.

5. The 35 U.S.C. 103 rejections of claims 14, 15 and 17 made of record in paragraphs 10-12 of the Final Rejecton mailed March 30, 2004 has been withdrawn due to Applicant's amendments in claim 25 in Amdt. E.

NEW REJECTIONS

Claim Rejections - 35 USC § 102

6. Claims 25, 11, 12 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakagawa.

In regard to claim 25, Nakagawa teaches a synthetic resin container (paragraph 01) that corresponds to the synthetic resin molded article as claimed comprising an acrylic resin sheet (the surface layer as claimed) and an injection molded thermoplastic reinforcement layer (the outer reinforcing shell layer as claimed) (paragraphs 08 and 48). Nakagawa teaches that the surface layer is a twice thermoformed layer (paragraphs 28, 30 and 31, note especially paragraph 30). Nakagawa teaches that the acrylic resin sheet is spread in both the longitudinal and transverse directions since Nakagawa teaches that pressure is applied to it on both sides in a softened state and that it is thermoformed to the configuration of a bathtub (paragraphs 26-28). Nakagawa teaches acrylonitrile-butadiene-styrene (ABS) resin as the plastic of the thermoplastic reinforcement layer (paragraphs 19 and 34), and therefore teaches that the outer reinforcing shell layer is made from ABS resin as claimed by Applicant. ABS resin is an acrylonitrile-styrene resin, i.e. a resin containing acrylonitrile and styrene monomers, and therefore Nakagawa teaches that the outer reinforcing shell layer is made from acrylonitrile-styrene resin as claimed by Applicant. Nakagawa teaches that the acrylonitrile-butadiene-styrene thermoplastic outer reinforcing shell layer comprises glass fibers having a length of about 1-6mm (paragraphs 20, 22 and 34-38), a range that overlaps with the claimed range of 5 to 10mm. Nakagawa teaches that the acrylic resin sheet (the surface layer as claimed) is coated with the thermoplastic reinforcement layer (the outer reinforcing shell layer as claimed) (paragraph 08) and therefore

teaches a structure that is equivalent to that recited by the phrase "outer reinforcing shell layer integrally molded to one surface of said surface layer" as claimed by Applicant. The recitation "wherein the outer reinforcing shell layer is formed by injection molding at an injection pressure of 200 to 1000 kg/cm^{2}" is a method limitation that has not been given patentable weight since the method of forming the article is not germane to the issue of patentability of the article itself.

In regard to claim 11, Nakagawa teaches that the acrylic resin sheet is transparent (paragraph 23). Nakagawa teaches that additives such as bulking agents (i.e., fillers) and coloring agents are added to the thermoplastic outer reinforcing shell layer requisite to need (paragraph 35-36). Nakagawa teaches that marble patterns are made in the thermoplastic outer reinforcing shell layer, and that the thermoplastic outer reinforcing shell layer is colored (paragraph 23). In regard to claim 12, Nakagawa teaches that the acrylic resin sheet is colored (paragraph 16). In regard to claim 16, Nakagawa teaches that glass fibers having a length of about 1-6mm (a range that overlaps with the claimed range of 400 to 1000μm) are used to raise rigidity of the outer reinforcing shell layer (paragraphs 20, 22 and 34-38).

Claim Rejections - 35 USC § 103

7. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakagawa in view of Adams et al., and in further view of Akamatsu.

Nakagawa teaches the patterned article as discussed above. Nakagawa teaches that the surface layer is transparent ABS (paragraphs 22, 23 and 19). Nakagawa teaches that marble patterns are made in the thermoplastic outer reinforcing shell layer (paragraph 23). Nakagawa fails to teach that the outer reinforcing shell layer is made of translucently or transparently colored ABS resin or AS resin. Adams et al., however, teach an assembled sanitaryware article

with appearance component 1 (Figures 1 and 2 and col. 3, lines 29-35). Examples of sanitaryware vessels are given on col. 1, lines 5-10). Adams et al. teach that sanitaryware appearance components are formed from acrylonitrile-butadiene-styrene (col. 3, lines 41-47). Akamatsu teach molded articles formed from translucent acrylonitrile-butadiene-styrene (ABS) resin (col. 7, lines 46-47); thus, Akamatsu establish that it is notoriously well known that acrylonitrile-butadiene-styrene (ABS) resin is available as a translucent resin. Therefore, one of ordinary skill in the art would have recognized to use translucent ABS resin as the material of the outer reinforcing shell layer of Nakagawa since Adams et al. teach that it is notoriously well known to use ABS resin as the material for sanitaryware vessels, and since Akamatsu establish that it is notoriously well known that acrylonitrile-butadiene-styrene (ABS) resin is available as a translucent resin.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used translucent ABS resin as the material of the outer reinforcing shell layer of Nakagawa since Adams et al. teach that it is notoriously well known to use ABS resin as the material for sanitaryware vessels, and since Akamatsu establish that it is notoriously well known that acrylonitrile-butadiene-styrene (ABS) resin is available as a translucent resin.

8. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakagawa in view of Stier et al.

Note that the recitation "obtained by subjecting said surface layer to thermoforming twice when said outer reinforcing shell layer is subjected to an injection molding" is a method limitation and has not given patentable weight, since the method of forming the surface layer and

the outer reinforcing shell layer is not germane to the issue of patentability of the surface layer and the outer reinforcing shell layer itself.

Nakagawa teaches the article as discussed above. Nakagawa fails to teach that the surface layer is provided with a skid-preventing texture. Stier et al., however, teach a prefabricated, slip-resistant surface coating comprising film (item 16) that has embedded in the film (item 16) a plurality of finely-divided abrasive materials (col. 2, line 63-col. 3, line 5 and Figure 2). Stier et al. teach the application of the slip-resistant surface coating to a bathtub (Figure 3 and col. 4, lines 31-39) to reduce the hazard presented by wet bathtubs (col. 1, lines 15-16). Therefore, one of ordinary skill in the art would have recognized to apply the slip-resistant surface coating of Stier et al. to the acrylic resin sheet of the molded article of Nakagawa in order to provide a skid-preventing texture to the acrylic resin sheet and to consequently reduce the hazard presented by wet bathtubs as taught by Stier et al.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have applied the slip-resistant surface coating of Stier et al. to the acrylic resin sheet of the molded article of Nakagawa in order to provide a skid-preventing texture to the acrylic resin sheet and to consequently reduce the hazard presented by wet bathtubs as taught by Stier et al.

9. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakagawa in view of Seymour et al.

Nakagawa teaches the article as discussed above. Nakagawa fails to teach that the reinforcing layer is formed integrally with a reinforcing rib of increased thickness in relation to the thickness of the remainder of the outer reinforcing shell layer. Seymour et al., however,

teach a bathtub made of fiber glass reinforced plastic, the bottom of which is preferably reinforced with molded ribs (col. 4, lines 9-11 and lines 18-19). The outer reinforcing shell layer, at the location of the molded ribs, necessarily has an increased thickness in relation to the thickness of the remainder of the outer reinforcing shell layer due to the structure of ribs molded into a plastic layer. Furthermore, Seymour et al. teach a back wall with molded-in ribs which give added strength and allow the major portion of the assembly to be made of thinner fiber glass reinforced plastic without sacrificing performance (col. 4, lines 38-43). One of ordinary skill in the art would have recognized to apply the concept of the use of molded-in ribs in the back wall of the construction to allow for the use of thinner plastic sheets without sacrificing strength properties to the bathtub of the construction. Therefore, one of ordinary skill in the art would have recognized to have formed the outer reinforcing layer of Nakagawa with an integrally formed rib or with integrally formed ribs in order to allow for the use of thinner plastic sheets without sacrificing strength properties to the bathtub of the construction as taught by Seymour et al.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have formed the outer reinforcing layer of Nakagawa with an integrally formed rib or with integrally formed ribs in order to allow for the use of thinner plastic sheets without sacrificing strength properties to the bathtub of the construction as taught by Seymour et al.

ANSWERS TO APPLICANT'S ARGUMENTS

10. Applicant's arguments presented on pages 13-14 of Amdt. E in regard to the 35 U.S.C. 102 rejection of claims 25, 11, 12 and 16 have been fully considered but are not persuasive. Applicant argues that "a foam resin is precluded by the injection conditions in the present

invention" due to the recitation of an injection pressure range, but this statement is not supported. A statement or argument by the Applicant's representative is not factual evidence (MPEP 716.01).

11. Applicant's arguments presented on pages 14-15 of Amdt. E in regard to the 35 U.S.C. 103 rejection of claim 14 have been fully considered but are not persuasive. The amendment that "clarifies that it is the "outer reinforcing shell layer" that is made of translucent [ABS] resin or translucent [AS] resin" has been addressed in the new 35 U.S.C. 103 rejection of claim 15 made of record in this Office Action. The remainder of Applicant's arguments depend upon Applicant's arguments regarding the 35 U.S.C. 102 rejection of claim 25 that have been addressed above.

12. Applicant's arguments presented on pages 15-16 of Amdt. E in regard to the 35 U.S.C. 103 rejection of claim 15 have been fully considered but are not persuasive. Applicant's first argument depends upon Applicant's arguments regarding the 35 U.S.C. 102 rejection of claim 25 that have been addressed above. Applicant also argues that "no abrasive particles are present in the skid-preventing texture of the present application", but the language of claim 15 does not exclude abrasive particles from the scope of the claim. Applicant further argues that "Stier's slip-resistant surface could not be produced by the process limitation of claim 15": regardless of whether or not this is true (support for this statement has not been provided), "Stier's slip-resistant surface" need not be "produced by the process limitation of claim 15" since "the process limitation of claim 15" had not been given weight for the reasons provided in paragraph 11 of the Final Rejection mailed March 30, 2004. Applicant also argues that "Stier does not suggest producing a skid-preventing texture by the method of claim 15", but Stier need not

"suggest producing a skid-preventing texture by the method of claim 15" since this method limitation has not been given weight.

13. Applicant's arguments presented on page 16 of Amdt. E in regard to the 35 U.S.C. 103 rejection of claim 17 have been fully considered but are not persuasive. Applicant's arguments depend entirely upon Applicant's arguments regarding the 35 U.S.C. 102 rejection of claim 25 that have been addressed above.

Conclusion

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Walter B. Aughenbaugh whose telephone number is 571-272-1488. The examiner can normally be reached on Monday-Thursday from 9:00am to 6:00pm and on alternate Fridays from 9:00am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon, can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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